PROKHOROV, V.

Trade unions int struggle for high labor productivity.   Sots.trud.
(MIRA 9:8)
no.5:8-17 My '56.
            (Efficiency, Industrial) (Trade unions)

PROKHOROV, V.

We should spare no efforts for the solution of the main economic problem of the party and people. MTG 3 no.11:2-4 N '61.
(MIRA 14:10)

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta professional'nykh soyuzov.

(Russia--Economic policy)

SUKHANOV, P., inzhener; PROKHOROV, V., inzhener.

Construction and calculation of stone walls of humid shops.
Mias. ind. SSSR 24 no.5:35-39 '53.
(MLRA 6:12)

(Walls)

1. Rosmyasomolproyekt.

PROKHOROV, V.

Days of a great upsurge. Sov.profsoiuzy 7 no.9:1-4 My '61.
(MIRA 14:4)

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta profsoyuzov.
   (Socialist competition)   (Trade unions)

PROKHOROV, V.

For militant and mass organizations of scientific circles. NTO
2 no.9:5-7 S '60.   (MIRA 13:9)

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta profsoyuzov.
                    (Technical societies)

PROKHOROV, V.

Grea, strength of socialist labor. Sots.trud 4 no.7:3-8 Jl
'60.   (MIRA 13:8)

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta profsoyuzov.
        (Labor and laboring classes)

PROKHOROV, V.

Trade unions and the widespread use of chemistry in the
national economy. Sov. profsoiuzy 20 no.3:2-4 F '64.
                                        (MIRA 17:3)

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta professional'-
nykh soyuzov.

PROKHOROV, V.

Collective agreements of 1957. Sots. trud no.7:22-29 Jl '57.
(MLRA 10:8)

1. Sekretar' Vsesoyznogo TSentral'nogo Soveta professional'nykh
soyuzov.   (Labor contract)

PROKHOROV, V.

Great energy for great objectives. NTO 6 no.1:2-4   Ja '64.
(MIRA 17:2)

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta professional'nykh soyuzov.

PROKHOROV, V.

Twelfth Congress of Trade Unions and some aspects of the develop-
ment of socialist competition. Sov.profsoiuzy 7 no.8:6-9
Ap '59.

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta profsoyuzov.
   (Trade unions--Congresses)

PROKHOROV, V.

Drive for economy and careful use of materials is a vital matter for trade unions. Sov. profsoiuzy 5 no.4:30-37 Ap '57. (MLRA 10:6)

1. Sekretar' Vsesoyuznogo TSentral'nogo Soveta professional'-nykh soyuzov.
(Efficiency, Industrial) (Trade unions)

PROKHOROV, V.

The main objective of societies. NTO no.8:2-5 Ag '59.   (MIRA 12:11)

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta profsoyuzov.
(Research, Industrial)

PROKHOROV, V.

Creative initiative of the masses and trade unions. Sob. profsoiuzy
16 no.21:11-16 N '60.   (MIRA 13:10)

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta profsoyuzov.
   (Socialist competition)   (Trade unions)

PROKHOROV, V.

Expand the participation of the masses in industrial management.
Sov. profroiuzy 18 no.1:6-8 Ja '62.   (MIRA 15:2)

1. Sekretar' Vsesoyuznogo tsentral'nogo soveta professional'nykh
soyuzov.
                        (Works councils)
                        (Trade unions)

PROKHOROV, V.A., polkovnik meditsinskoy sluzhby

Some defects in the selection of patients for health resort treatment.
Voen.-med. zhur. no.5:71 My '56.   (MIRA 9:9)
          (HEALTH RESORTS, WATERING PLACES, ETC.)

PROKHOROV, V. A.

G

USSR/Zooparasitology - Parasitic Protozoa.

Abs Jour : Ref Zhur Biol., No 1, 1959, 916

Author   : Prokhorov, V.A.

Inst   : Arkhangel Medical Institute

Title   : Observation of the Character of the Excretion of Cysts of
             Lamblia Intestinalis in Humans

Orig Pub : Sb. tr. Arkhang. med. in-t, 1957, vyp. 17, 233-237

Abstract : Excretion of cysts of the Giardia lamblia in humans oc-
             curred intermittently at an interval of 8 - 12 days,
             and for the diagnosis of lambliosis a triple examination
             was necessary every 3 - 4 days. The use of meat food
             contributed to a reduction in the number of excreted
             cysts.

Card 1/1

PROKHOROV, V. (Gulenki, Molotovskogo rayona, Primorskogo kraya).
Elimination of dispersion in condensers. Radio no.9:25 S '5 .
(MLRA 5:3)
(Condensers (Electricity)

GRIGAL, V.; PROKHOROV, V.

      Reliability of radio equipment. Radio no.12:20-21 D '61.
                                        (MIRA 14:12)
               (Radio--Equipment and supplies)

AUTHOR: Prokhorov, V. (UAOJA)   SOV/107-58-10-19/55

TITLE: New Short-Wave Radio-Stations (Novyye KV radiostantsii)

PERIODICAL: Radio, 1958, Nr 10, p 15 (USSR)

ABSTRACT: A reader tells of the opening of new amateur radio-stations
               in the Amur Oblast .

Card 1/1

SOV-107-58-8-19/53

AUTHORS: Prokhorov, V. Chairman of the SW and VHF Sections; Cherep-
nenko, N., Chairman of the Radio Club Council,; Rudakov,A.,
Head of Amur Oblast Radio Club; Shkurov, Ye., Chairman of
the Amur Oblast Committee of DOSAAF.

TITLE: Are the Radio Amateurs of the Zero Region at Fault? (Vino-
vaty li radiolyubiteli nulevogo rayona?)

PERIODICAL: Radio, 1958, Nr 8, p 14   (USSR)

ABSTRACT: The authors explain the points system used in amateur radio
competitions and show how it is biased against radio ope-
rators in the zero region (Far East and Siberia) compared
with operators in the European part of the USSR. To rectify
this, a new points system is suggested in which the points
awarded increase with the distance over which contact is
made. The present point system takes into account the dis-
appointing results achieved in competitions by zero region
operators.

1. Radio operators--Performance

Card 1/1

ALEKSEYEV, N.G.; PROKHOROV, V.A.

Differential photorelay for a thermostat [with English summary in insert]. Zhur.fiz.khim.30 no.5:1144-1145 My '56.   (MLRA 9:9)
(Photoelectric cells) (Thermostat)

PROKHOROV, V. H.

"Application of a Scintillation Spectrometer in Physicochemical Investigations," by N. G. Alekseyev, V. P. Grigal, A. V. Kozlova, and V. A. Prokhorov, Zhurnal Fizicheskoy Khimii, Vol 31, No 4, Apr 57, pp 915-919

It is pointed out that investigation of physicochemical processes with the application of tracer atom methods is considerably simplified in many cases if radioactive isotopes of several elements are used simultaneously. When the decay of these isotopes is accompanied by gamma-emission, the quantitative determination of every isotope in the mixture can be accomplished with the aid of a scintillation gamma-spectrometer. The isotopes are identified on the basis of the energies of the gamma-lines of the spectrum while the activity of every isotope is determined on the basis of the number of recorded gamma-quanta. The paper describes a spectrometer setup with a single NaI(TI) crystal and presents a method for calibration and measurement permitting determination of the composition of mixtures with an accuracy of 5-10%. The effectiveness of the crystal in determinations of gamma-radiation emitted by Cs^{134}, Cs^{137}, Zr^{95}, Zn^{65}, Fe^{59}, Na^{24}, and Sb^{124} was measured. The gamma-spectrum of gamma-radiation emitted by a mixture of Sn^{113}, Zr^{95}, and Zn^{65} was determined. (U)

Sum /x 1951

76-32-2-33/38

AUTHORS: Voskoboynikov, M. I., Kubantsev, A. P.,
            Prokhorov, V. A.

TITLE: A Calorimetric Apparatus for the Measurement of Heat Processes
            of Duration
            (Kalorimetricheskaya ustanovka dlya izmereniya dlitel'nykh
            teplovykh protsessov)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 2, pp. 460-464
            (USSR).

ABSTRACT: A calorimetric apparatus is described. It serves for the measure-
            ment of the heat effects of chemical and physical-chemical long-
            duration processes. It consists of a thermostat TC-24 in a diffe-
            rential calorimeter and the electronic circuit connected with it.
            The thermostat in which the calorimeter is placed makes it possible
            to select the temperature for the experiment within the limits of
            from $25°$ to $150°C$ and to maintain this temperature with a constant
            accuracy of $\pm 0,1°C$. The calorimetric sensitivity of the apparatus
            $\delta q = 2,8 \cdot 10^{-4}$ cal/hour. In order to check the measurement accuracy
            an electric calibration of the apparatus was carried out. The de-
            _____ in the measurement of the total value of the heat emitted

A Calorimetric Apparatus for the Measurement of Heat   76-32-2-33/38
Processes of Duration

was 0,05%. In order to illustrate the operation of the appa=
ratus a measurement of the heat emission of the radioactive
isotopes P^{32} and Sb^{122} was carried out. The difference in heat
emission between the calculated values and those obtained by the
authors was 1,7 cal/hour curie. This value corresponds to the
γ radiation energy not retained in the calorimeter.
There are 3 figures, 2 tables, and 4 references, 2 of which are
Soviet.

SUBMITTED: October 18, 1957.

          1. Calorimeters--Design   2. Calorimeters--Performance
          3. Calorimeters--Test results

Card 2/2

ROSOLOVSKIY, V. Ya.; ZINOV'YEV, A.A.; PROKHOROV, V.A.

Density in the system chloric anhydride – water.   Zhur. neorg. khim. 5
no.3:692-694 Mr '60.   (MIRA 14:6)

1. Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova
AN SSSR.   (Chlorine oxide)

5.2460 $a\ell\sim$ 2209

84212
S/078/60/005/010/002/021
B004/B067

AUTHORS: Rosolovskiy, V. Ya., Zinov'yev, A. A., Prokhorov, V. A.

TITLE: Production of Perchloric Anhydride

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 10,
             pp. 2148-2152

TEXT: The authors discuss the hitherto known methods of producing
Cl_2O_7 by reacting $HClO_4$ with P_2O_5. Since Cl_2O_7 was distilled off at
$40 - 80°C$, it always contained Cl_2O_6 and ClO_2 impurities. The methods
published earlier by the authors are briefly mentioned: reaction of
liquid $HClO_4$ with solid P_2O_5 and distilling off Cl_2O_7 at $-30°C$ and 2 torr
(Ref. 7), and reaction of vaporous $HClO_4$ with solid P_2O_5 (Ref. 8). The
present paper reports on a new method in which SO_3 is used for
dehydration. When adding oleum to $HClO_4$ and cooling with dry ice, the
liquid is separated into two layers at a certain concentration ratio

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84212

S/078/60/005/010/002/021
B004/B067

Production of Perchloric Anhydride

(Tables 1,2). The upper one contains almost pure Cl_2O_7 from which the low SO_3 amount (0.5%) is removed by distillation at 2 torr over P_2O_5 in a collecting vessel cooled with dry ice (Fig.). The lower liquid layer contains H_2SO_4, SO_3, $HClO_4$, Cl_2O_7, and crystals of either pyrosulfuric acid or of the compound $(ClO_3)(HS_2O_7)$, which was discovered by A. A. Spryskov (Ref. 9). No pure Cl_2O_7 could be distilled off from this mixture. To avoid explosions one must work cautiously. The upper layer must be poured off since the friction of the tap of a separating funnel may already cause explosion. The following summational reaction equation is given: $2HClO_4 \cdot 2H_2O + 5SO_3 = Cl_2O_7 + 5H_2SO_4$ (4). There are 1 figure, 2 tables, and 9 references: 3 Soviet, 3 US, 1 British, and 2 German.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR, Laboratoriya neorganicheskogo sinteza (Institute of General and Inorganic Chemistry imeni N. S. Kurnakov of the Academy of Sciences USSR, Laboratory of Inorganic Synthesis)

Card 2/3

Production of Perchloric Anhydride

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S/078/60/005/010/002/021
B004/B067

SUBMITTED: June 27, 1959

Card 3/3

85482

S/108/60/015/011/005/012
B019/B063

9,2583

AUTHORS: Al'tshuller, G. B., Prokhorov, V. A., Members of the Society

TITLE: Compensation of the Temperature-dependent Frequency
Variations of Quartz Generators by Means of the p-n Junction
Capacity of Semiconductor Devices

PERIODICAL: Radiotekhnika, 1960, Vol. 15, No. 11, pp. 39-44

TEXT: The capacity of a p-n junction in blocked state is a particularly
stable parameter of semiconductor devices. If this capacity is controlled
by a temperature-dependent voltage, it may be used to compensate
temperature-dependent frequency variations. The authors estimate the
maximum possible compensation and select the necessary circuit elements.
The problem is studied on a quartz generator in which the resonator is
interconnected between grid and anode (Fig. 2). It proved to be most
efficient to connect the compensating capacity and the quartz in series;
the minimum compensating capacity turned out to be most favorable. A
relation is derived for the relative value of the change of the control
voltage required for the change in capacity. It is finally noted that

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Compensation of the Temperature-dependent
Frequency Variations of Quartz Generators by
Means of the p-n Junction Capacity of Semi-
conductor Devices

S/108/60/015/011/005/012
B019/B063

the frequency stability can be improved only by means of a stabilized
power source. The compensation method described by the authors may be also
used for other radiotechnical purposes. There are 4 figures and 4
references: 3 Soviet and 1 British.

SUBMITTED: March 12, 1960

Card 2/2

ALEKSEYEV, N.G.; PROKHOROV, V.A.; CHMUTOV, K.V.; FINKEL', E.E., red.; KOGAN, V.V., tekhn. red.

[Use of electronic equipment and circuits in physical chemistry] Primenenie elektronnykh priborov i skhem v fiziko-khimicheskom issledovanii. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 552 p.
(MIRA 14:12)

(Electronic apparatus and appliances)
(Chemistry, Physical and theoretical)

22208

S/106/61/000/001/004/008
A055/A033

9.3583 (1040,1147)

AUTHORS: Al'tshuller, G. B. and Prokhorov, V. A.

TITLE: Selecting the component parts of circuits of thermal compensation
             of frequency variation of quartz oscillators

PERIODICAL: Elektrosvyaz', no. 1, 1961, 24 - 32

TEXT: Applied to crystal oscillators, the usual method of thermal compensa-
tion of frequency variations is ineffective. Even reactances with a high tempera-
ture coefficient do not ensure such frequency variation as is necessary for compen-
sation, the variation of reactances being insufficient for that purpose. One of
the methods allowing to obtain a sufficient variation of reactances with tempera-
ture is the utilization of XR-circuits controlled by thermosensitive resistances
(thermistors): for instance, an XR-circuit, composed of an inductance (or a capa-
citance) in parallel with a thermistor, can be connected in series with the crystal
resonator, or an XR-circuit, composed of an inductance (or a capacitance) in series
with a thermistor, can be connected in parallel with the crystal. This method of
thermal compensation of crystal oscillators has already been described (Ref. 1:

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S/106/61/000/001/004/008
A055/A033

Selecting the component parts ....

Spears, "Thermally compensated crystal oscillators", The Journal of the British Institution of Radio Engineers, vol. 18, No. 10, 1958), but the article in question contains no precise data on the choice of the component parts of the compensating XR-circuit, and gives no information whatever on the losses caused by such a circuit. Therefore, examining the case of the most usual connections of crystal oscillating systems (with crystal resonator connected either between anode and grid or between grid and cathode), and using equivalent circuits of the Hartley oscillator, the author of the article develops general formulae giving the losses (loss resistances) in the case of either series or parallel connected compensating circuits. He then investigates the problem of controlling the frequency of the crystal oscillator by XR-circuits, and produces formulae and diagrams showing the admissible relationships between the various parameters of the whole circuit. These theoretical results are confirmed experimentally. Other curves show quite clearly the advantage of using thermally compensated crystals, as compared to non-compensated ones. Speaking finally of "BT-cut" and "AT-cut" crystals, the author gives a brief account of a theoretical and experimental investigation showing the peculiarities of the thermal compensation of these crystals. He states that frequency regulation of a "BT-cut" crystal is more difficult than that of an "AT-cut"

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Selecting the component parts ...

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A055/A033

crystal. The majority of "At-cut" crystals have a positive temperature coeffi-
cient of frequency. For their thermal compensation, it is necessary to connect
them either in series with a parallel CR-circuit or in parallel with a series
LR-circuit. [Abstracter's note: by analogy with G-cut, X-cut and Y-cut crystals,
the Russian "АТ" and "БТ" should most probably be translated by AT-cut and БТ-cut].
There are 10 figures and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The
reference to an English language publication reads as follows: Spears,"Thermally
compensated crystal oscillators", The Journal of the British Institution of Radio
Engineers, vol. 18, No. 10, 1958.

SUBMITTED: February 16, 1960.

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30980
S/107/61/000/012/004/006
D201/D302

/3.2900 (1159)

AUTHORS: Grigal, V., and Prokhorov, V.

TITLE: Reliability of electronic equipment

PERIODICAL: Radio, no. 12, 1961, 20-21

TEXT: The authors consider the reliability of modern compli-
cated electronic equipment together with the fundamentals of the
equipment reliability theory. The theory of reliability is said to
consider cases when the equipment is working in normal operating
conditions, so that failure of the equipment has a random charac-
ter. Quantitatively, reliability is defined as the average opera-
ing time (T_0) without a failure in the instrument operation. For
most electronic instruments, the factor λ depending on the duration
of operation and determining the occurrence of failure, may be re-
presented by a graph against time, rising initially during a cer-
tain period T_1, then falling to, and remaining constant during

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Reliability of electronic equipment

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time T_2 and rising again during the rest of the instrument life T_3.
By preliminary artificial ageing and proper choice of components it
is possible to obtain an operation of equipment which, from the
start, will have the occurrence of failure minimized down to
period T_2 which is the longest and corresponding to the normal
ploitation period of the equipment life. The average operating
time without failure T_0 is evaluated statistically. The reliabili-
ty of a component depends on given conditions of its operation.

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Reliability of electronic equipment
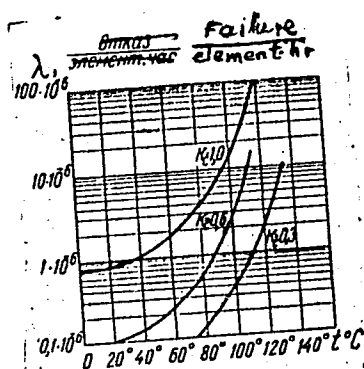
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Fig. 2

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Reliability of electronic equipment

shows the graph of λ against temperature for mica capacitors, with

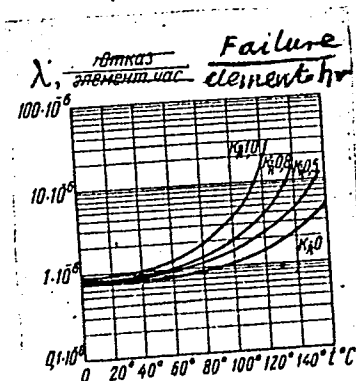$K_c = \dfrac{U_{op}}{U_{nom}}$ as parameter and

Fig. 3

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D201/D302

Reliability of electronic equipment

the graph of λ against temperature for resistors, with $K_R = \dfrac{W_{op}}{W_{nom}}$

as parameter, U_{op}, W_{op} and U_{nom}, W_{nom} – being the operating and
nominal voltage and wattage respectively. To increase the accuracy
of calculations it is said in some cases to be advisable to take
into account differences in the reliability of various types of
components. For instance capacitors type $kБМ$(KBM) have a rate of
failures of 3.5×10^{-6} elements. hr. while this rate for capacitors
type $КБГ$(KBG) is only 1.6×10^{-6} elements hr. The danger of failure
of an instrument, its average time of operation without failure and
the reliability of its operation for a given time may be calculated.
The simplest case is when all the circuit components are connected
in series. If the components are independent of each other, the
circuit reliability P at any instant t is given by formula

$$P = e^{-(\lambda_1 + \lambda_2 + \lambda_3 + \cdots \lambda_n)t} = e^{-\lambda t} \quad (1)$$

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Reliability of electronic equipment

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where

$$\lambda = \lambda_1 + \lambda_2 + \lambda_2 + \dots + \lambda_n - $$

is the probability of failure of an instrument containing series connected (in terms of reliability) components. The above method has been applied to evaluate the reliability of the third class superhet.receiver "Rekord" and of the transistorized receiver "Minsk" (Radio, no. 3, 1960). The list of components of each receiver is given in a table. Possible failures of those elements are taken into account by the introduction of a coefficient (1.1 –1.4) in formula (1) which thus becomes

$$P = e^{-(1.1-1.4)\lambda t} \quad (2)$$

The value of this coefficient has been assumed from experience which shows that 10-30% of total failures are due to the failure of switching and assembly elements. The reliability of the receiver "Rekord" was thus found to be

$$P = e^{-700 \cdot 10^{-4} t}$$

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S/107/61/000/...
D201/D302

Reliability of electronic equipment

and the average life time $T_o = \dfrac{1}{700 \times 10^{-6}} = 1430$ hrs. For the re...

"Minsk" P is given by

$$P = e^{-450 \cdot 10^{-6}t}$$

and $T_o = \dfrac{1}{460 \times 10^{-6}} = 2220$ hrs, the graphs of reliability against time show that the reliability and life time of transistorized receivers are better than that of vacuum tube receivers. It is stated in conclusion that obtaining a required reliability of operation of complex electronic equipment, containing tens of thousands of elements is difficult and sometimes impossible without certain special precautionary methods, such as the method of reserve components, the simplest of which is duplication. Two duplicate circuits with reliability P=0.9 connected in parallel increase their overall reliability to 0.99. Thus, methods of a designing complex system with reserve components have been developed which make it possible t...

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Reliability of electronic equipment

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design complex systems with a given reliability. There are 4
figures and 2 tables.

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GRIGAL, V.P.; PROKHOROV, V.A.

Regulated rectifier for the power supply of measurement
circuits. Zhur.fiz.khim. 35 no.8:1865-1866 Ag '61.
                                          (MIRA 14:8)
                (Electric current rectifiers)

ACC NR: AP6034596   (N)   SOURCE CODE: UR/0115/66/000/010/0035/0037

AUTHOR: Prokhorov, V. A.

ORG: none

TITLE: Optimizing design parameters of a tuning fork release regulator

SOURCE: Izmeritel'naya tekhnika, no. 10, 1966, 35-37

TOPIC TAGS: electronic computer, computer component, circuit design, optimization

ABSTRACT: After describing the rising importance of electronic digital computers,
problems are discussed in "optimizing parameters" in their design and construction,
including the establishment of quality indicators; also the search for greater
accuracy, reliability, and technological improvement; programming and "debugging".
The efficiency of the "Slava" tuning fork release regulator is designated the quality
criterion in a computer, since it reduces the amount of current consumed. A drawing
of this release is explained, referring to its transistor emitter. Formulas are
given for its overall functioning, average power consumption in its impulse winding,
also for winding resistance and for vibration coefficients. The requirement is set
that its vibration amplitude must be within a range of 38 to 44 µ. A study for opti-
mizing a triple-address electronic computer found that the lowest power consumption
was in machines with 1900 or 8080 loops. Orig. art. has: 12 formulas and 1 figure.

SUB CODE: 09,12/ SUBM DATE: 02Jun66/ ORIG REF: 008
Card 1/1   UDC: 529.78.001.24

STRIK, G.I.; PSHENOV, V.A.

Effect of cortisone on the reactivity of the organism in heat and high mountains. Trudy Dushe. med. inst. ti:tct-19 '__.

1. Tadzhikskiy meditsinskiy institut imeni Abuali Ibni Sino, Dushanbe.

PROKHOROV, Vladimir Borisovich; MIKHAYLOVSKIY, Yu.V., kand. tekhn.
nauk, retsenzent; SOLOV'YEV, N.S., otv. red.

[Operation of machines in the lumbering industry] Eksplu-
atatsiia mashin v lesozagotovitel'noi promyshlennosti.
Moskva, Goslesbumizdat, 1963. 382 p.   (MIRA 17:6)

KUZIN, Aleksandr Stepanovich; KRASHENINNIKOV, Ye.M., retsenzent;
PROKHOROV, V.B., dots., kand. tekhn. nauk, otv. red.;
BEZGODOVA, L.V., red.; URITSKAYA, A.D., tekhn. red.

[Operation of machines; maintenance of engines. A laboratory
manual] Ekspluatatsiia mashin; tekhnicheskoe obsluzhivanie
dvigatelei. Posobie k laboratornym zaniatiiam dlia studen-
tov lesomekhanicheskogo i lesoinzhenernogo fakul'tat~
ningrad, Vses. zaochnyi lesotekhnicheskii in-t; 196z.   p.
(MIRA 16:5)

1. Zaveduyushchiy kafedroy tyagovykh mashin Petrozavodskogo
universiteta (for Krasheninnikov).
(Engines--Maintenance and repair)

PROKHOROV, V.B.

Specialized machinery and equipment for lumbering. Trudy LTA
no.83:11-26 '59.   (MIRA 13:4)
                 (Lumbering--Machinery)

PROKHOROV, V.B.

Basic indicators of the effectiveness of machinery and equipment in lumbering. Trudy LTA no.83:27-37 '59.

(MIRA 13:4)

(Lumbering--Machinery)

PROKHOROV, V.B.

Fuel economy of lumber transportation units. Trudy LTA no.83:
39-42 '59.   (MIRA 13:4)
           (Lumber--Transportation)
           (Motortrucks--Fuel consumption)

PROKHOROV, V. B.

USSR (600)

Gas Burners

Gas burner in Uralzis-LTA. Les. prom., 12, No. 1, 1952.

PROKHOROV, V.D., gornyy inzhener.

One should not avoid the sidewise method of coal cutting. Mekh.trud.
rab. 8 no.3:39 Ap-My '54.   (MLRA 7:6)
         (Coal mines and mining)

PROKHOROV, V. D.

USSR/Mining - Methods

Card 1/1

Authors   : Prokhorov, V. D.

Title   : It is Impossible to Discard the Side Cutting of Coal

Periodical   : Mekh. Trud. Rab. Ed. 3, 39, Apr - May 1954

Abstract   : A critical review of G. A. Lomov article pertaining to the mechan-
                  ized excavation of coal. The author states that G. A. Lomov failed
                  to list specific instructions for the operation of his coal excavat-
                  ing machine, type ZAL-1, and that he did not take into account the
                  side cutting and removal of coal, which at present is not yet fully
                  mechanized and results in loss of time.

Institution   : ....

Submitted   : ....

SULIMA-SAMUYLLO, A.P., prepodavatel'; KROT-KRIVAL', I.S., prepodavatel';
     KOVROVTSEVA, Ye.G., prepodavatel'; KOVALEVA, I.N., prepodavatel';
     BUGROVA, O.G., prepodavatel'; LEVENTO, T.Ya., prepodavatel';
     PROKHOROV, V.F., red.; ZHAVORONKOV, I.I., red.; KHITROV, P.A.,
     tekhn.red.

[German-Russian railroad dictionary] Nemetsko-russkii zhelezno-
dorozhnyi slovar'. Sost.A.P.Sulima-Samuillo i dr. Pod red.
V.F.Prokhorova. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va
putei soobshcheniia, 1960. 536 p.
                                          (MIRA 14:4)

1. Kafedra inostrannykh yazykov Moskovskogo instituta inzhenerov
zheleznodorozhnogo transporta (for Sulima-Samuyllo, Krot-Krival',
Kovrovtseva, Kovaleva, Bugrova, Levento)
            (Railroads--Dictionaries)
        (German language--Dictionaries--Russian)

ARTEMOV, A.P.; AVDEY, V.E.-Ya.; ROKHCHINA, L.G.; DUBNER, M.I., kand.
    tekhn.nauk, red.; MEDER, V.L., kand.tekhn.nauk, red.; PROKHOROV,
    V.F., inzh.-mayor, red.; GRECHENKO, Ye.N., red.-leksikograf;
    YAKIMOVICH, Yu.K., red.-leksikograf; ANIKINA, R.F., tekhn.red.

[German-Russian artillery dictionary] Nemetsko-russkii artille-
riiskii slovar'. Pod red. M.I.Dubnera i V.L.Medera. Moskva,
Voen.izd-vo M-va obor.SSSR, 1960. 436 p.   (MIRA 13:4)
    (Artillery--Dictionaries) (German language--Dictionaries--Russian)

ROZENBERG, Ivan Aleksandrovich; GOLUBEVA,K.A., inzh.,retsenzent; MA-
     SLIY, K.Ya., zuborez, retsenzent; ZHUKOV,P.A., kand.ekon.nauk,
     red.; PROKHOROV,V.F.,red. vypuska; BELYAKOV,M.N., red.; ROZEN-
     BERG,I.A., kand.ekon.nauk, red.;SMIRNITSKIY,Ye.K., kand.ekon.
     nauk, red.; SUSTAVOV,M.I., inzh.,red.; DUGINA,N.A., tekhn.red.

[From the shift plan to the national economic plan] ot smen-
nogo do narodnogo khoziaistvennogo plana. Moskva, Mashgiz,
1960. 45 p. (Biblioteka rabochego mashinostroitelia: Seriia
"Osnovy konkretnoi ekonomiki," no.3)   (MIRA 14:5)
     (Russia--Economic policy)   (Industrial management)

GRISHIN, I.I., inzh.; PROKHOROV, V.F., inzh.

Safety measures in servicing the power supply stations of automatic
block systems. Avtom., telem. i sviaz' 6 no.10:21-22 O '62.
(MIRA 16:5)
(Railroads—Signaling—Block system)
(Railroads—Safety regulations)

PROKHOROV, V.F., inzh.

Stationary machine tool for drilling ties. Transp.stroi. 9 no.6:54
Je '59.
      (Great Britain--Drilling and boring machinery)   (MIRA 12:11)
              (Railroads--Ties)

CHOCHIA, A.P.; SHCHEGLOV, A.S.; PROKHOROV, V.F., red.; KUZ'MIN, I.F., tekhn. red.

[English-Russian armored dictionary] Anglo-russkii avtobronetankovyi slovar'; svyshe 30 000 slov i sochetanii. Moskva, Voen. izd-vo M-va oborony SSSR, 1961. 783 p.   (MIRA 14:10)
(English language—Dictionaries—Russian)
(Tanks (Military science)—Dictionaries)

DOZOROV, Nikolay Ivanovich, kand.tekhn.nauk, inzh.; PROKHOROV, V.F..,
inzh.-mayor, red.; SAVIN, B.V., red.-leksikograf; ANIKINA, R.F.,
tekhn.red.

[English-Russian radio-electronics dictionary] Anglo-russkii
slovar' po radioelektronike. Moskva, Voen.izd-vo M-va obor.
SSSr, 1959. 535 p.   (MIRA 12:10)
                    (Electronics--Dictionaries)
          (English language--Dictionaries--Russian)

PROKHOROV, V.F., inzh.

Changing wooden bushings in reinforced concrete ties. Put' i put.
khoz. no.5:41 My '59.   (MIRA 12:8)
                (Railroads--Rails--Fastenings)
                (Railroads--Ties, Concrete)

PROKHOROV, V. G.

"On Transformation of an Ultrasonic into a Visible Image,"

report presented at ʞ the Seminar on Physics, Application of Ultrasound 23-26

Oct '57.

LeningradXᴛᴀ̶ᴋ̶ᴋ̶ᴋ̶ɪ̶ᴋ̶ᴋ̶ᴋ̶ᴋ̶ Electro-Tech. Inst., Leningrad.

PROKHOROV, V.G

46-3-7/15

AUTHOR: Prokhorov, V.G.

.TITLE: On the Conversion of an Ultrasonic Image into a Visual Image.
(K voprosu preobrazovaniya ul'trazvukovogo izobrazheniya v
vidimoye)

PERIODICAL: Akusticheskiy Zhurnal, 1957, Vol.III, Nr 3, pp.254-261
(and 1 plate) (USSR).

ABSTRACT: The paper describes an apparatus for the conversion of an
ultrasonic image into a visual image, using an electron-
acoustic tube. The work of a piezoquartz plate working as
a receiver is investigated and the sensitivity threshold of
the tube is determined. Some practical applications in the
range 4-10 Mc/sec are described. A block diagram of the
electron-acoustic converter is given in Fig.1. A beam of
plane ultrasonic waves from the emitter (1) falls on the
object under consideration (2), placed, for example, in a
liquid medium. An acoustic shadow is formed behind the
object, as shown in the figure. If the wavelength of the
ultrasonic wave is less than the linear dimensions of the
object, then the form and the dimensions of the acoustic
shadow will, up to a point, reflect the form and dimensions
of the object. The ultrasonic lens (3) projects this
shadow image onto a piezoelectric plate receiver. The main

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On the Conversion of an Ultrasonic Image into a Visual Image.

element of the converter is the electron-acoustic tube (4) which converts an ultrasonic image into a series of electric signals. The tube has a piezoelectric target (quartz plate) instead of the usual CRO screen. On the outer side turned towards the ultrasonic waves the plate is covered with a silver coating and is earthed. Near the internal surface of the plate there is an additional electrode which captures secondary electrons which are ejected from the target by the electron beam. An ultrasonic beam transmitted through the medium containing the object and the lens has a certain distribution of intensity across its cross-section which corresponds to the form and structure of the irradiated object. When such an ultrasonic field acts on the piezoreceiver, different parts of the latter will be subjected to different ultrasonic pressures (different amplitudes). To obtain a maximum sensitivity the work is carried out at a resonance frequency common to the emitter and the piezo target. As a result of the piezo effect on the surface of the target piezoelectric charges are formed, corresponding to the distribution of pressure across the cross-

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46-3-7/15

On the Conversion of an Ultrasonic Image into a Visual Image.

section of the ultrasonic beam, i.e., a conversion of the ultrasonic image into a piezoelectric image occurs. This piezoelectric image is converted into a series of electrical signals and subsequently into a visual image. This is carried out by means of the electron sweep (5). The electron beam scans the surface of the piezoelectric target, forming a television grid. Since the piezoelectric target is a good dielectric, the only source of current is the primary electron beam and the current loss is by secondary emission of electrons into the collector. On equilibrium when the potential of the surface reaches an equilibrium value, the current into the target should be equal to the current from it. In that case deposition or extraction of charge from the surface of the target will appear as a modulation of the secondary current collected on the collector electrode. In this case the change in the charge on the surface of the target is due to a piezoelectric effect occurring under the action of the ultrasonic image produced in the way described above. In this way a high frequency signal appears across the load in the collector circuit due to the change in the number of secondary electrons leaving the surface of the piezo-target. After

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On the Conversion of an Ultrasonic Image into a Visual Image.

the amplifier (6) and a detector, this signal is applied
to a kinescope (7). If the two tubes are suitably syn-
chronised then the kinescope gives an image corresponding
directly to the original ultrasonic image. The work of this
system is considered and the quality of the conversion is
illustrated in Figs.11-14. The work was carried out in
1950-1953. S.Ya.Sokolov is thanked for advice. There are
14 figures and 12 references, of which 5 are Russian, 3 are
German and the rest are English.

ASSOCIATION: Pushkin, Leningrad Oblast   (g.Pushkin,Leningr.obl.)

SUBMITTED: December 10, 1956.

AVAILABLE: Library of Congress.

Card 4/4

PROKHOROV, V.G.

Quantitative spectrum analysis using a steeloscope. Trudy
Gor.-geol. inst. UFAN SSSR.} no.34:67-70 '58.   (MIRA 14:10)
(Spectrum analysis)

152-58-6-9/13

AUTHOR: Prokhorov, V.G.

TITLE: The Application of the Blowing-in and Injection Methods to Metallometric Mass-Analyses (Primeneniye metoda vduvaniya-prosypki pri vypolnenii massovykh metallometricheskikh ana-lizov)

PERIODICAL: Razvedka i Okhrana Nedr, 1958, Nr 6, pp 54-56 (USSR)

ABSTRACT: This is a description of the unit for accelerated spectral analysis of metallometric samples, constructed by the Urals Geological Administration. It was built according to plans elaborated by A.K. Rusanov /Ref. 1, 2_/. Its aim is to sharply increase the number of spectral analyses. Its principle consists in the blowing- in of the powder of the analyzed mine-ral to the arc discharge. The description of the apparatus is given: the analysis of each sample takes only 22-25 seconds. The man in charge of the operation can make as many as 600 analyses in one shift. There are 3 drawings, 1 table and 2 Soviet references.

ASSOCIATION: Ural'skoye Geolupravleniye (The Urals Geological Administration)

AVAILABLE: Library of Congress

Card 1/1   1. Instruments-Metals-Sampling-Application

28(1),24(7)

AUTHOR: Prokhorov, V. G.   SOV/32-25-2-6./78

TITLE: Some Methods for Mechanization of the Spectrum Analysis
               (Nekotoryye priyemy mekhanizatsii spektral'nogo analiza)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 2, pp 238-240 (USSR)

ABSTRACT: The method of reducing the intensity of the spectral line
               (Ref 1) is used for approximately determining raw materials,
               rocks, minerals, and soil samples. The spectral line, which is
               photographed with the help of a clearing agent, is wedge-shaped,
               and its length depends on the amount of the element under
               investigation contained in the material. A mechanization of
               this analysis process is described. The element content to be
               determined is calculated by means of a calculation table which
               is also used in metallometric analyses (Fig 1). The length of
               the spectral line, the reading of which is taken by means of a
               microscope, is transferred, by means of a micrometer caliper
               with a special mechanism, to the calculation table where the
               amount of the element is shown in a gradation curve.

Card 1/2

Some Methods for Mechanization of the   SOV/32-25-2-61/78
Spectrum Analysis

    The automatic calculation table described can also be used in
    connection with stylometers. Moreover, an automatic device
    (Fig 2) for producing geochemical sections during the analysis
    process is described. The working principle of the apparatus
    is analogous to the one described above, but a cylinder is
    used instead of a table, which turns and records the data
    obtained on a paper tape. There are 2 figures and 1 Soviet
    reference.

ASSOCIATION: Ural'skoye geologioheskoye upravleniye
      (Ural Geological Administration)

Card 2/2

PROKHOROV, V.G.

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PHASE I BOOK EXPLOITATION   SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960.
   Materialy (Materials of the Third Ural Conference on Spectros-
   copy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip
   inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR.
   Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G.
   Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publish-
   ing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff
   members of spectral analysis laboratories in industry and scien-
   tific research organizations, as well as for students of related
   disciplines and for technologists utilizing analytical results.

Card 1/3

Materials of the Third Ural Conference (Cont.)

110

COVERAGE: The collection presents theoretical and practical prob-
lems of the application of atomic and molecular spectral analy-
sis in controlling the chemical composition of various materials
in ferrous and nonferrous metallurgy, geology, chemical indus-
try, and medicine. The authors express their thanks to G. V.
Chentsova for help in preparing the materials for the press.
References follow the individual articles.

SOV/6181

TABLE OF CONTENTS:

Foreword

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KHANSKIY, Ye.V.; LEVCHENKO, V.F.; PROKHOROV, V.G.; SMAGIN, N.I.

Ultrasonic method used for determining small amounts of water
in methanol. Zav.lab. 28 no.3:312-313 '62.   (MIRA 15:4)

1. Nauchno-issledovatel'skiy i proyektnyy institut azotnoy
promyshlennosti i produktov organicheskogo sinteza.
          (Methanol) (Water) (Ultrasonic testing)

L 7786-66

ACC NR: AP5028048

SOURCE CODE: UR/0046/65/011

AUTHOR: Dianov, D.B.; Prokhorov, V.G.

ORG: Leningrad Electrotechnical Institute im. V.I. Ul'yanov (Lenin) (Leningradskiy elektrotekhnicheskiy institut)

TITLE: Focusing ultrasonic reflectors

SOURCE: Akusticheskiy zhurnal, v. 11, no. 4, 1965, 442-452

TOPIC TAGS: acoustic radiation, acoustic radiation, acoustic equipment, ultrasonic radiation, ultrasonic equipment, acoustic reflection

ABSTRACT: This article analyzes and compares the effectiveness of seven various types of ultrasonic reflectors and presents the necessary engineering calculations of such devices. In addition to known types, the article examines two devices proposed by the present authors, one of which incorporates reflectors in the form of a truncated rotation paraboloid and a plane radiator, and the other a device with two reflectors in the form of truncated parabolic cylinders. Analytic expressions are presented for the functions of amplitude of the wave front, amplification factors, focusing factors at the acoustic pressure, rate. On the basis of the expression obtained, the authors perform factors of focusing concentrators with different values of their parameters. A comparison of the concentrators with different values of their parameters the parameters are determined. A comparison of the concentrators, and differ little among themselves in their basic characteristics, and

UDC: 534.24

L 7786-66

ACC NR: AP5028048   SOURCE CODE: UR/0046/65/011/004/0442/0452

AUTHOR: Dianov, D.B.; Prokhorov, V.G.

ORG: Leningrad Electrotechnical Institute im. V.I. Ul'yanov (Lenin) (Leningradskiy elektrotekhnicheskiy institut)

TITLE: Focusing ultrasonic reflectors

SOURCE: Akusticheskiy zhurnal, v. 11, no. 4, 1965, 442-452

TOPIC TAGS: acoustic radiation, acoustic equipment, ultrasonic radiation, ultrasonic equipment, acoustic reflection

ABSTRACT: This article analyzes and compares the effectiveness of seven various types of ultrasonic reflectors and presents the necessary engineering calculations of such devices. In addition to known types, the article examines two devices proposed by the present authors, one of which incorporates reflectors in the form of a truncated rotation paraboloid and a plane radiator, and the other a device with two reflectors in the form of truncated parabolic cylinders and a plane radiator. Analytic expressions are presented for the functions of amplitude distribution at the wave front, amplification factors, focusing factors at the acoustic pressure, and the oscillation rate. On the basis of the expression obtained, the authors perform calculations of the factors of focusing concentrators with different values of their parameters. The optimal values of the parameters are determined. A comparison of the concentrators examined shows that they differ little among themselves in their basic characteristics, and

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UDC: 534.24

L 7786-66

ACC NR: AF5028048

that their focusing factors can achieve high magnitudes. Orig. art. has: 14 figures and 50 formulas.

SUB CODE: GP,IE / SUBM DATE: 09Jul65 / ORIG REF: 008 / OTH REF: 003

UW

Card 2/2

ACC NR: AP6035736

SOURCE CODE: UR/0413/66/000/019/0098/0098

INVENTOR: Prokhorov, V. G.

ORG: none

TITLE: Unit for converting ultrasonic vibrations into a visual image. Class 42, No. 186751

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 98

TOPIC TAGS: Nondestructive quality control, ultrasonic quality control, ultrasonic image converter, visual ultrasonic image signal.

ABSTRACT: This Author Certificate introduces a device for converting ultrasonic vibrations into a visual image. The unit (Fig. 1) consists of an emitter, an ultrasonic objective, an electrokinetic target fastened to the screen of a cathode-ray
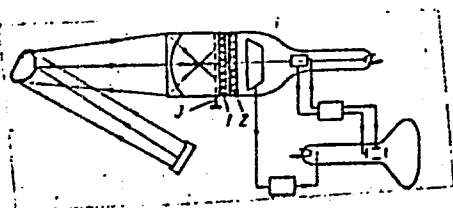

Fig. 1. Ultrasonic vibration image converter

1 - Target; 2 - screen; 3 - electrode.

UDC: 534-8:771.351.7

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ACC NR: AP6035736

tube connected to a kinescope through an amplifier, and a synchronizer. To improve the quality of the image, the multi-electrode target is made in the form of a diaphragm with cylindrical capillaries, one side of which is connected to a dielectric screen with built-in metallic electrodes which are connected to individual or to a group of capilliaries, and the other side is provided with a metallized, common source transparent electrode. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 23Mar64/ ATD PRESS: 5106

14/

Card 2/2

KHAYRETDINOV, I.A.; DOKUKIN, G.P.; PROKHOROV, V.G.; SVERLOVA, V.N.

Use of gas testing for prospecting in the fault areas of the Western Sayan Mountains. Geol. i geofiz. no.10:135-137 '65.
(MIRA 18:12)

1. Krasnoyarskoye otdeleniye Sibirskogo nauchno-issledovatel'-skogo instituta geologii, geofiziki i mineral'nogo syr'ya. Submitted March 25, 1964.

BERMAN, B.I.; PROKHOROV, V.G.; KHAYRETDINOV, I.A.

Temperatures of the formation of pyrite-complex metal mineralization
in eastern Tuva. Geol.rud.mestorozh. 7 no.4:63-75 Jl-Ag '65.
                                                  (MIRA 18:8)

1. Moskovskiy geologorazvedochnyy institut im. Ordzhonikidze.

VOYTKEVICH, G.V.; PROKHOROV, V.G.; KHAYRETDINOV, I.A.

Nature of thermoelectric effect in minerals. Dokl. AN SSSR 162
no.1:169-172 My '65.   (MIRA 18:5)

1. Krasnoyarskaya kompleksnaya laboratoriya Instituta geologii i
geofiziki Sibirskogo otdeleniya AN SSSR. Submitted January 13,
1965.

VORONENKOVA, L.D.; PROKHOROV, V.G.

History of the ichthyofauna of the lower Don River; based on materials of the Nizhne-Gnilovskoy ancient site of the 1st and 2nd centuries A.D. Zool. zhur. 42 no.1:143-146 '63.
(MIRA 16:5)

1. Belorussian Agricultural Academy, Gorki.
(Don Valley—Fishes, Fossil)

End
#4447